

What is claimed is:

1. A tool for gripping ophthalmic lenses comprising:  
at least one gripper;  
a shaft associated with said gripper, said shaft having two ends and being slidably attached at one end thereof to a support structure  
a resilient member which biases said gripper in a direction away from said support structure;  
a locking member which locks said shaft in a desired position during a lens gripping operation.
2. The tool of claim 1, wherein the other end of said shaft is connected to a connecting plate and wherein said gripper is attached to said connecting plate.
3. The tool of claim 2, wherein the longitudinal axes of the gripper and the shaft are offset.
4. The tool of claim 1, wherein said resilient member is a spring;
5. The tool of claim 4, wherein said spring is connected between said support structure and a connecting plate.
6. The tool of claim 5, wherein the other end of said shaft is connected to a connecting plate and wherein said gripper is attached to said connecting plate.

7. The tool of claim 1, wherein said locking member comprises a piston and cylinder connected to a friction pad, the friction pad engaging a flat portion of said shaft during the lens gripping operation.
8. The tool of claim 1, wherein said locking members pneumatically operated.
9. The tool of claim 1, wherein said tool is connected to a six axis robotic arm.
10. The tool of claim 1, wherein said grippers are vacuum grippers.
11. A tool for gripping ophthalmic lenses comprising:
  - a base;
  - a plurality of extension arms connected to said base;
  - a vacuum gripper base plate connected to said extension arms;
  - a shaft slideably connected to said vacuum gripper base plate at one end and fixably connected to a connecting plate at another end;
  - a resilient member attached between said gripper base plate and said connecting plate;
  - a vacuum gripper attached to said connecting plate, such that the longitudinal axes of the vacuum gripper and the shaft are offset.
12. The tool of claim 11, wherein the resilient member is a spring.
13. The tool of claim 12, wherein the tool further comprises a locking member comprising a piston and cylinder, wherein the locking member locks the shaft in a desired position during a lens gripping operation.

14. The tool of claim 13, wherein the locking member further comprises a friction pad attached to said piston and wherein said friction pad engages a flat portion of the cylinder during a lens gripping operation.

15. The tool of claim 11, wherein said tool is connected to a six axis robotic arm.

16. A lens hold down mechanism comprising:

a support member;

at least one shaft slidably connected to said support member;

a resilient member which biases said shaft in a downward direction;

a lens contact member attached to said shaft;

a robotic arm connected to said support member, wherein when said robot moves in a downward direction to pick up a lens tray, said lens contact member will contact lenses in said tray and cause said shaft to move upwardly with respect to said support member, and wherein said resilient member maintains a pressure on said lens in said lens tray.

17. The lens hold down mechanism of claim 16, wherein said resilient member is a spring.

18. The lens hold down mechanism of claim 16, wherein said support member is attached to a lens gripper tool.

19. An electronic communications scheme comprising:

a server;

a robotic arm; and

a device, wherein said server communicates with said device through a first communications port on said device and wherein said device communicates with said robotic arm through a second communications port.

20. The electronic communications scheme of claim 19, wherein said device is an ophthalmic edging machine.

21. The electronic communications scheme of claim 20, wherein there is a plurality of ophthalmic edging machines communicating with said robotic arm through the ophthalmic edging machines' respective second communications port.

22. An ophthalmic lens manufacturing cell layout comprising:  
a robotic arm;  
a plurality of ophthalmic edging machines;  
wherein said ophthalmic edging machines have an opening that faces away from said robotic arm.

23. An arrangement for holding an ophthalmic edging machine within an ophthalmic manufacturing cell comprising:  
an ophthalmic edging machine;  
at least two rails, wherein said edging machine includes a bracket that engages said rails; and  
a locking mechanism, wherein said locking mechanism holds said ophthalmic edging machine in a desired position along said rails.

24. The arrangement of claim 23, wherein said rails contain at least one groove.

25. The arrangement of claim 24, wherein said locking member engages said at least one groove to lock said ophthalmic edging machine in place.
26. The arrangement of claim 23, wherein said bracket straddles said rails.
27. The arrangement of claim 26, wherein said bracket includes set screws that engage with second and third grooves on said rails.
28. The arrangement of claim 24, wherein each rail has a locking member to lock said ophthalmic edging machine in place.